

ABSTRACT

A method and system for plating CoNiFe is disclosed. The method and system include providing a plating solution including hydroxymethyl-p-tolylsulfone and plating the CoNiFe film on a substrate in the plating solution. The plating solution is configured to provide a CoNiFe film having a high saturation magnetic flux density and having a composition of 50-70 weight percent of Fe and 3-8 weight percent of Ni. In another aspect, the method and system include plating at least a portion of a first and/or second pole of a write head using the plating solution including hydroxymethyl-p-tolylsulfone HPT and configured to plate the CoNiFe film having a high saturation magnetic flux density and a composition of 50-70 weight percent of Fe and 3-8 weight percent of Ni.